

**BY THE ORDER OF THE COMMANDER  
AIR COMBAT COMMAND**

**AIR FORCE INSTRUCTION 21-136**



**AIR COMBAT COMMAND  
SUPPLEMENT**

**14 AUGUST 2014**

***Management***

**AIRCRAFT SUN SHADE  
MANAGEMENT**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

---

**ACCESSIBILITY:** Publications and forms are available on the e-Publishing website at [www.e-Publishing.af.mil](http://www.e-Publishing.af.mil) for downloading or ordering.

**RELEASABILITY:** There are no releasable restrictions on this publication.

---

OPR: ACC/A4MS

Certified by: ACC/A4M  
(Col Darrell Mosley)

Pages: 55

---

AFI 21-136 is supplemented as follows. This supplement prescribes policies and procedures governing aircraft sun shade maintenance management for Air Combat Command (ACC). This publication does not apply to the Air National Guard (ANG) and the Air Force Reserve Command (AFRC) and their units. However, if an AFRC or ANG unit is assigned or associated with ACC where ACC is the lead, this guidance would be applicable to the AFRC or ANG unit. Field units may supplement this policy. For assistance with interpreting this supplement, contact ACC/A4MS, Sun Shade Program Management. The authorities to waive wing/unit level requirements in this publication are identified with a Tier ("T-0, T-1, T-2, and T-3") number following the compliance statement. See AFI 33-360, Publications and Forms Management, for a description of the authorities associated with the Tier numbers. Submit requests for waivers through the chain of command to the appropriate Tier waiver approval authority, or alternately, to the Publication OPR for non-tiered compliance items. Deviation and waiver authority for this instruction is ACC/A4. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using an Air Force (AF) Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through the appropriate functional's chain of command. Ensure all records created as a result of processes prescribed in this publication are maintained in accordance with (IAW) Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS). Contact supporting records managers

as required. Send comments, questions, and suggested improvements to this publication on AF Form 847, *Recommendation for Change of Publication*, through channels to HQ ACC/A4QM, 130 Douglas Street, Suite 210, JB Langley-Eustis, VA 23665-2791.

2.3.3.1. (**Added-ACC**) To procure new/replacement aircraft sun shades, organizations must meet one of the following requirements in paragraphs **2.3.3.1.1.** and **2.3.3.1.2.** The climatic data that was used to validate these requirements was retrieved from the 14<sup>th</sup> Weather Squadron web site: <https://notus2.afccc.af.mil/SCIS/> (**T-1**)

2.3.3.1.1. (**Added-ACC**) The base must experience a 10-year average Wet Bulb Globe Temperature (WBGT) of  $\geq 82^{\circ}$  F for a minimum of two months out of the year. See paragraph **2.3.7.3.** for annual calculation procedures. **Note:** The average hottest consecutive five hours of the day were used to determine the monthly average WBGT. See **Table 2.1.** for bases which currently are authorized to procure sun shades (**T-1**).

2.3.3.1.2. (**Added-ACC**) The base must experience a 10-year average of 20 inches or more of snow annually. See **Table 2.2.** for bases which currently are authorized to procure sun shades (**T-1**).

**Table 2.1. (Added) Wet Bulb Globe Temperature (WBGT) 10-Year Average (2001-2010).**

<b>BASE</b>	<b>June</b>	<b>July</b>	<b>August</b>	<b>September</b>
	<b>Average Hottest 5 hr Block</b>	<b>Average Hottest 5 hr Block</b>	<b>Average Hottest 5 hr Block</b>	<b>Average Hottest 5 hr Block</b>
Moody AFB, GA	78.8	84.6	86.4	86.5
Tyndall AFB, FL	79.8	84.7	86.1	86.3
Robins AFB, GA	77.6	83.7	85.8	85.9
Shaw AFB, SC	75.6	82.3	84.5	84.6
Dyess AFB, TX	76.6	82.1	84.1	83.7
Seymour Johnson AFB, NC	74.1	81.7	83.8	84.1
Tinker AFB, OK	73.1	79.7	83.2	83
Nellis AFB, NV	72.3	77.9	83.7	82
Davis Monthan AFB, AZ	72.7	78.3	82.6	82.5
<b>Bases Below Not Authorized</b>				
Langley AFB, VA	70.7	79.1	81.7	82.2
Creech AFB, NV	70.2	76.2	82.8	79.8
Offutt AFB, NE	67.8	76.7	81.4	79.9
Beale AFB, CA	73.2	77.4	81.9	80.2
Ellsworth AFB, SD	59.5	68.6	75.8	73.3
Hill AFB, UT	60.4	67.4	75.1	72.1
Holloman AFB, NM	69.5	75.5	78.7	78
Mountain Home AFB, ID	62.8	69	75.2	73.7

**Table 2.2. (Added) Snowfall 10-Year Annual Average Inches (2001-2010).**

<b>Snowfall 10 Year Annual Average Inches (2001-2010)</b>	
<b>BASE</b>	<b>AVG</b>
Hill AFB, UT	64
Ellsworth AFB, SD	46
Offutt AFB, NE	24
<b>Bases Below Not Authorized</b>	
Mountain Home AFB, ID	10
Langley AFB, VA	5
Tinker AFB, OK	4
Dyess AFB, TX	2
Seymour Johnson AFB, NC	2
Holloman AFB, NM	1
Shaw AFB, SC	1
Beale AFB, CA	0
Creech AFB, NV	0
Davis Monthan AFB, AZ	0
Moody AFB, GA	0
Nellis AFB, NV	0
Robins AFB, GA	0

2.3.7. **(Added-ACC)** ACC/A4M will:

2.3.7.1. **(Added-ACC)** Administer and enforce ACC Aircraft Sun Shade policy.

2.3.7.3. **(Added-ACC)** Review weather criteria used in the development of requirements every 4 years or to revalidate unit authorizations.

2.4.4.1. **(Added-ACC)** Recommend contracting officer representative (COR) be the unit's aircraft sun shade manager unless otherwise designated by the MXG/CC.

2.4.4.2. **(Added-ACC)** The Civil Engineering (CE) Contracting Officer Technical Representative (COTR) will assist the Contracting Officer (CO) and Sun Shade Manager during the procurement and the contracted maintenance of sun shades.

2.4.4.2.1. **(Added-ACC)** The CE COTR will be provided an opportunity to conduct a technical review during aircraft sun shade procurement.

2.4.4.2.2. **(Added-ACC)** The CE COTR's primary focus is the preservation of the base's physical plant infrastructure (i.e., electrical and airfield pavement) and not the unit's procured individual equipment.

2.4.4.2.3. **(Added-ACC)** Regarding contracted maintenance, the CE COTR shall be provided an opportunity to conduct a technical review and quality control inspection for non-routine repairs or modifications of sun shades to ensure compliance with applicable codes.

2.4.5. **(Added-ACC)** Wing CC will:

2.4.5.1. **(Added-ACC)** Utilize the standardized ACC Aircraft Sun Shade Procurement Statement of Work (SOW), Attachment 2 when procuring new or upgrading/replacing existing sun shades **(T-1)**.

2.4.5.2. **(Added-ACC)** Utilize the standardized ACC Aircraft Sun Shade Sustainment Performance Work Statement (PWS), Attachment 3 when sustaining existing sun shades if organic support is unavailable **(T-1)**.

2.4.5.3. **(Added-ACC)** Obtain ACC/A4 approval of SOW or PWS packages using the electronic AF Form 1768, *Staff Summary Sheet*, (e-SSS). Send the completed e-SSS with SOW or PWS and any supporting documents (outlined in paragraph 2.5.1.5.) to the ACC/A4 Workflow e-mail box. The completed e-SSS will be coordinated (including sub-organization coordination) and signed by the following base agencies **(T-1)**:

2.4.5.3.1. **(Added-ACC)** Base Air Field Management

2.4.5.3.2. **(Added-ACC)** Base SE

2.4.5.3.3. **(Added-ACC)** Base MSG/CC

2.4.5.3.4. **(Added-ACC)** Base MXG/CC

2.4.5.4. **(Added-ACC)** Coordinate with Foreign Military Services (FMS) units and applicable FMS Office which have sun shades installed on the installation to have them removed prior to FMS departure or the local unit will assume sustainment of the aircraft sun shades.

2.4.6. **(Added-ACC)** MXG/CC will:

2.4.6.1. **(Added-ACC)** Ensure serviceability/appropriate use of aircraft sun shades **(T-1)**.

2.4.7. **(Added-ACC)** Aircraft Sun Shade Manager will:

2.4.7.1. **(Added-ACC)** Maintain all installation and maintenance records on assigned sun shades to include manufacturer's drawings and specifications, if available **(T-1)**.

2.4.7.2. **(Added-ACC)** Lead the planning, funding, maintenance and lifetime sustainment of the sun shades unless otherwise directed by the owning organizations leadership **(T-1)**.

2.4.7.3. **(Added-ACC)** Ensure inspections are conducted at intervals directed by the manufacturer. If no inspection intervals are available, contractor inspections shall be accomplished every three years **(T-1)**.

2.4.7.4. **(Added-ACC)** Owning organizations must maintain inspection records for a minimum of three years **(T-1)**.

2.4.7.5. **(Added-ACC)** Report any detected discrepancies to the sustainment contractor or organic entity to correct **(T-1)**.

2.4.7.6. **(Added-ACC)** Coordinate with organic entity or contractor and AMU in advance to schedule inspections and/or repair of sun shade **(T-1)**.

2.5.1.5.1. **(Added-ACC)** Planning materials submitted to MAJCOM/A4 shall also include proof of coordination with all applicable wing functional areas **(T-2)**.

2.5.1.6.1. **(Added-ACC)** Shade columns shall be wrapped with 2- or 3-inch wide reflective tape that meets Federal Specification L-S-300C. Self-adhesive, self-illuminating tape, which stores energy, or “recharges” with exposed UV-illuminated visible light may be used. Reflective tape must be a solid band, on all columns; exact location shall be determined at the unit level **(T-2)**.

2.6.1.1. **(Added-ACC)** Units will only procure new/complete replacement aircraft sun shades with structure and roof materials which are made of galvanized steel **(T-2)**.

2.6.1.2. **(Added-ACC)** Sun shades will be arranged to cover a single parking space and can be connected to another sun shade covering a single parking space (row). The amount of parking spaces per row will be based on available ramp space **(T-2)**.

2.6.7.1. **(Added-ACC)** Make each sun shade “light-ready,” for security and general lighting, IAW the standardized SOW (**Attachment 2**) **(T-1)**.

2.6.9.1. **(Added-ACC)** Foundations may be required to support the aircraft sun shade structure to secure mounting bolt patterns. Installation of foundations (if required) carries a work classification of Construction. All construction must be programmed IAW AFI 32-1032. Programming rules and costs limitations apply to the total aircraft sun shade set being installed.

2.7.1.1. **(Added-ACC)** Bases which own but are not authorized to procure sun shades IAW paragraph **2.3.3.1**, are not required to remove pre-existing sun shades.

2.7.1.1.1. **(Added-ACC)** May modify/upgrade existing sun shades to correct safety or security issues upon A4 approval IAW paragraph **2.3**.

2.7.1.1.2. **(Added-ACC)** If repairs/sustainment become significant or not cost effective, owning organizations shall remove the sun shade(s).

2.8.1.1. **(Added-ACC)** The appointment letter will be kept with the local policy.

2.8.3.1.3.1. **(Added-ACC)** Periodic inspections are defined as a 180-Day visual walk around of the areas listed in paragraphs 2.8.4.1. - 2.8.4.4. This inspection will be conducted by the owning organization to ensure the sun shade serviceability **(T-1)**.

2.8.4.1.1. **(Added-ACC)** Inspect all columns, beams, joists, girders and lateral cross bracing for proper connections, faulty/cracked welds, loose or missing bolts and corrosion **(T-1)**.

2.8.4.1.2. **(Added-ACC)** Inspect turnbuckles and cables for severe corrosion, fraying or breaks, tightness, proper connection and security **(T-1)**.

2.8.4.1.3. **(Added-ACC)** Inspect for loose/missing and damaged attaching hardware **(T-1)**.

2.8.4.1.4. **(Added-ACC)** Inspect anchor plate bolts for embedment, tightness and severe corrosion **(T-1)**.

2.8.4.1.5. **(Added-ACC)** Inspect anchor plate for levelness (i.e., ensure it is flat on the ground) **(T-1)**.

2.8.4.1.6. **(Added-ACC)** Inspect concrete around all anchor plates for cracks/spalling **(T-1)**.

- 2.8.4.5. **(Added-ACC)** Metal Roofing (if equipped)
  - 2.8.4.5.1. **(Added-ACC)** Inspect roof panels and fasteners for security **(T-1)**.
  - 2.8.4.5.2. **(Added-ACC)** Inspect for loose/missing and damaged attaching hardware **(T-1)**.
  - 2.8.4.5.3. **(Added-ACC)** Inspect metal roof for severe corrosion **(T-1)**.
- 2.8.4.6. **(Added-ACC)** Fabric Roofing (if equipped)
  - 2.8.4.6.1. **(Added-ACC)** Inspect fabric for proper tightness **(T-1)**.
  - 2.8.4.6.2. **(Added-ACC)** Inspect all bolts, nuts, cables and lacing **(T-1)**.
  - 2.8.4.6.3. **(Added-ACC)** Inspect all fabric for holes, tears, scuffs or scrapes **(T-1)**.
- 2.8.4.7. **(Added-ACC)** Miscellaneous
  - 2.8.4.7.1. **(Added-ACC)** If installed, inspect gutters to ensure they are securely fastened **(T-1)**.
  - 2.8.4.7.2. **(Added-ACC)** If equipped, inspect bird netting and fasteners for tightness **(T-1)**.
- 2.8.5.1. **(Added-ACC)** Ensure inspections are accomplished following unique weather events such as high winds, heavy snow or icing conditions **(T-1)**.
- 2.8.5.2. **(Added-ACC)** The sun shade must be marked in a way to visually identify it as unserviceable **(T-1)**.
- 2.8.7. **(Added-ACC)** Coordinate with Airfield Management and Wing Safety to establish local operating guidelines for vehicle/aerospace ground equipment operations in close proximity to aircraft sun shades **(T-1)**.
- 3.1.3. **(Added-ACC)** Units are not authorized to procure new or upgrade existing crew shelters. Units will remove existing crew shelters when determined to be beyond useful life **(T-2)**.
- 3.2.5. **(Added-ACC)** Units are not authorized to procure new or upgrade portable/inflatable shelters. Units will remove existing portable/inflatable shelters when determined to be beyond useful life **(T-1)**. This policy does not apply to the shelters managed by the Basic Expeditionary Airfield Resources (BEAR) program IAW AFI 25-101, *War Reserve Material (WRM) Program Guidance and Procedures*.

JOHN B. COOPER  
Major General, USAF  
Director of Logistics

## Attachment 1

### GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

#### *References*

- AFI 31-101, *Integrated Defense*, 8 Oct 2009
- AFI 31-401, *Information Security Program Management*, 1 Nov 2005
- AFI 32-1023 ACCSUP1, *Design and Construction Standards and Execution of Facility Construction Projects*, 23 Jun 2005
- AFI 32-1065, *Grounding Systems*, 1 Oct 1998
- AFI 33-115 Vol 2, *Licensing Network Users and Certifying Network Professionals*, 14 Apr 2004
- AFI 33-200, *Information Assurance Management*, 23 Dec 2008
- AFMAN 91-201, *Explosive Safety Standards*, 12 Jan 2011
- AISC 325, *Steel Construction Manual, 14th Edition*, July 2011
- ANSI/AISC 341-10, *Seismic Provisions for Structural Steel Buildings*, 22 Jun 2010
- ANSI/AISC 360-10, *Specification for Structural Steel Buildings*, 28 Mar 12
- ASCE 7-10, *Minimum Design Loads for Buildings and Other Structures*, 2010
- ASCE 19-10, *Structural Applications of Steel Cables for Buildings*, 2010
- AWS A5.1/A5.1M, *Specification for Carbon Steel Electrodes for Shielded Metal Arc Welding*, 1 Jan 2012
- AWS D1.1/D1.1M, *Structural Welding Code- Steel*, 1 Jan 2010
- AWS D1.3/D1.3M, *Structural Welding Code- Sheet Steel*, 2012
- ASTM A780/A780M, *Standard Practice for Repair of damaged and Uncoated Areas of Hot-Dip Galvanized Coatings*, 1 May 2009
- DoD 5200.1 Vol 3, *DoD Information Security Program: Protection of Classified Information*, 24 Feb 2012
- Illuminating Engineering Society (IES) Handbook, 2011
- International Building Code (IBC), 2012
- MBMA MBSM, *Metal Building Systems Manual*, 2012
- National Association of Architectural Metal Manufacturers (NAAMM) AMP 500-06, *Metal Finishes Manual*, 2006
- National Fire Protection (NFPA) 70, *National Electrical Code*, 2011



NFPA 77, *Recommended Practice on Static Electricity*, 2007

NFPA 780, *Standard for Installation of Lightning Protection Systems*, 2011

UFC 3-310-04, *Seismic Design for Buildings*, 1 May 12

### ***Prescribed Forms***

This supplement does not contain prescribed forms.

### ***Adopted Forms***

AF Form 847, *Recommendation for Change of Publication*

AF Form 1768, *Staff Summary Sheet*

AF Form 2587, *Security Termination Statement*

### ***Abbreviations and Acronyms***

**AISC**—American Institute of Steel Construction

**ANSI**—American National Standards Institute

**AMU**—Aircraft Maintenance Unit

**AFRIMS**—Air Force Records Information Management System

**ASCE**—American Society of Civil Engineers

**ASTM**—American Society for Testing and Materials

**AWS**—American Welding Society

**BEAR**—Basic Expeditionary Airfield Resources

**CBT**—Computer Based Training

**CO**—Contracting Officer

**COR**—Contracting Officer Representative

**DoD**—Department of Defense

**ES&H**—Environmental Safety and Health

**ETR**—Estimated Time to Repair

**FMS**—Foreign Military Sales

**GFP**—Government-Furnished Property

**IBC**—International Building Code

**IES**—Illuminating Engineering Society

**LED**—Light-Emitting Diode

**LPS**—Lightning Protection System  
**M&R**—Maintenance and Repair  
**MBMA**—Metals Building Manufacturers Association  
**MBSM**—Metal Building System Manual  
**MSG**—Mission Support Group  
**NAAMM**—National Association of Architectural Metal Manufacturers  
**NAC**—National Agency Check  
**NFPA**—National Fire Protection  
**NLT**—No Later Than  
**OEM**—Original Equipment Manufacturer  
**PMP**—Preventative Maintenance Plan  
**PWS**—Performance Work Statement  
**QCP**—Quality Control Plan  
**RDS**—Records Disposition Schedule  
**SE**—Safety  
**S&H**—Safety and Health  
**SOW**—Statement of Work  
**WBGT**—Wet Bulb Globe Temperature

### *Terms*

**Configuration Management**—physical attributes or characteristics. Installation of original hardware/equipment.

**Contracting Officer Representative (COR)**—typically the Aircraft Sun Shade Manager, unless otherwise appointed by the MXG/CC.

**Corrosion**—the electrochemical oxidation of metals in reaction with an oxidant such as oxygen. Can occur in any environment.

**Dead Load**—includes loads that are relatively constant over time, including the weight of the structure itself, and immovable fixtures such as walls, plasterboard or carpet.

**Fatigue**—the progressive and localized structural damage that occurs when a material is subjected to cyclic loading.

**Fracture**—the (local) separation of an object or material into two, or more, pieces under the action of stress.

**Fraying**—to strain; chafe. To wear away (the edges of fabric, for example) by rubbing. To become worn away or tattered along the edges. A frayed or threadbare spot, as on fabric.

**Hardware**—a general term for items such as fasteners, bolts, washers, wire, turn buckles, etc.

**Metal sun shades**—both the Roof and the structure (frame) will be made of galvanized steel.

**No Limit Warranty**—a warranty that has no limitations on monetary responsibility. Some warranties are pro-rated, meaning the coverage is reduced proportionately depending on how many years it has been since installation.

**Serviceable**—safe for use and discrepancies do not pose a hazard to personnel, equipment and/or aircraft.

**Statement of Work (SOW)**—a formal document that captures and defines the work activities, deliverables, and timeline a vendor must execute in performance of specified work for a client.

**Structural Failure**—loss of the load-carrying capacity below manufacturer's design. Can refer to a component or member within a structure or of the structure itself.

**Unserviceable**—presents a danger to personnel, equipment and/or aircraft.

**Wear**—erosion or sideways displacement of material from its "derivative" and original position on a solid surface performed by the action of another surface. Wear is related to interactions between surfaces and more specifically the removal and deformation of material on a surface as a result of mechanical action of the opposite surface.

**Attachment 2**  
**(Sample SOW)**

**STATEMENT OF WORK (SOW)**  
**FOR**  
**AIRCRAFT SUN SHADES PROCUREMENT AND WARRANTY**  
**DD MM YYYY**

## **TABLE OF CONTENTS**

### **SECTION A            DESCRIPTION OF PRODUCT**

#### **1.0 SCOPE OF WORK**

- 1.1     Background
- 1.2     Scope

#### **2.0 SUN SHADE REQUIREMENTS**

- 2.1     Sun Shade Requirements
- 2.2     Lighting/Power Specifications
- 2.3     Lightning Protection

### **SECTION B            GENERAL INFORMATION**

#### **1.0 TRANSITION**

- 1.1     Assuming Functional Responsibility
- 1.2     Access to Facilities
- 1.3     Phase-In Plan
- 1.4     Phase-Out Plan

#### **2.0     CONTRACTOR PERSONNEL**

- 2.1     Contractor Employees
- 2.2     Employee Training

#### **3.0     HOURS OF OPERATION**

- 3.1     Duty Hours
- 3.2     Holiday

#### **4.0     SAFETY**

- 4.1     Contractor Liability
- 4.2     Safety and Health Program

## **5.0 SECURITY**

- 5.1 Identification and Credentials
- 5.2 Government-Furnished Security Training
- 5.3 Escorting
- 5.4 Retrieving Identification Media
- 5.5 Traffic Laws
- 5.6 Weapons, Firearms and Ammunition
- 5.7 Computer Security
- 5.8 Photography

## **SECTION C WARRANTY**

### **1.0 WARRANTY**

- 1.1 Sun Shade(s) Warranty
- 1.2 Roof System Weather-Tightness Warranty
- 1.3 Roof and Wall Panel Finish Warranty

### **2.0 PROGRAM MANAGEMENT**

- 2.1 Responsibilities
- 2.2 Maintenance Documentation
- 2.3 Planned Work

## **SECTION D GOVERNMENT-FURNISHED PROPERTY AND SERVICES**

### **1.0 GOVERNMENT-FURNISHED PROPERTY AND SERVICES**

- 1.1 General Information
- 1.2 Government-Furnished Training

## **SECTION E APPENDICES**

- Appendix A References
- Appendix B Definitions
- Appendix C Deliverables
- Appendix D Maintenance Documentation
- Appendix E Annual Inspection Report

## **SECTION A**

### **DESCRIPTION OF PRODUCT**

#### **1.0 SCOPE OF WORK.**

**1.1 Background.** Over the years, Air Force units have procured aircraft sun shades (herein referred to as “sun shades”) of all types and sizes. The Air Force has determined it is in the best interest of the Government to standardize sun shades for the protection of Government resources.

**1.2 Scope.** Provide and install for Air Combat Command and United States Air Forces Central (ACC/USAFCENT) all-metal sun shades that meet the requirements in section A, paragraph 2.0 of this Statement of Work (SOW).

#### **2.0 SUN SHADE REQUIREMENTS.**

**2.1 Sun Shade Requirements.** Provide galvanized steel sun shades that are designed and constructed in compliance with the applicable criteria and regulations listed in Appendix A, References and any state, county and city codes.

**2.1.1 Seismic Design.** Sunshade design and construction shall comply with seismic provisions of Unified Facilities Criteria (UFC) 3-301-01, and IBC 2009, American National Standards Institute/American Institute of Steel Construction (ANSI/AISC) 441, using the design procedures and loads in American Society of Civil Engineers (ASCE) 7 as prescribed in UFC 3-301-01. The contractor shall indicate on the drawings all locations and features for which special inspection and testing is required. Contractor must also follow all federal, state, county and city codes.

**2.1.2 Thermal Movements.** Sun shades must be designed to accommodate thermal stresses according to provisions in AISC 360 and AISC Code of Standard Practice and any other federal, state, county and city codes.

**2.1.3 Wind Loads.** Wind pressures shall be computed and applied IAW Metal Building Systems Manual and 2010 supplement, as well as ASCE 7 and federal, state, county and city codes.

**2.1.4 Parking Bays.** Parking bays shall be arranged so a sun shade can cover a single parking space and can be connected to another sun shade covering a single parking space. The sun shades shall be stand-alone column structures with open ends and sides allowing adjacent bays to

share common frame. Sun shade spots will accommodate the footprint of assigned aircraft and should consider future force structure changes.

**2.1.5 Concrete Anchors.** Sun shades shall be free standing and anchored to the existing concrete parking apron. Concrete anchors shall be designed and installed according to the provisions found in American Concrete Institute (ACI) 318A. Column supports shall not be installed on any joint to ensure pavement integrity. Column support placement must meet the minimum edge spacing requirements in ACI 318A.

**2.1.6 Fasteners.** All fasteners shall be corrosion resistant and of a type and size to meet the performance requirements and design loads. Fasteners, washers and nuts shall be corrosion resistant, as well as have locking features.

**2.1.7 Lateral Bracing, Side Cables or X Braces.** Lateral bracing, side cables or X braces shall meet the requirements identified in Metal Building Manufacturer's Association (MBMA) systems manuals, ASCE Standard 19-10 and UFC 3-301-01. Lateral bracing, side cables or X braces shall have a minimum clearance of at least 10 feet from top of pavement, per Air Combat Command requirement.

**2.1.8 Bird Mitigation.** Mitigation of bird roosting and nesting shall be incorporated into the design and installation of the sun shade.

**2.1.9 Color.** All sun shade surfaces shall be a uniform neutral color of grey, tan, or beige.

**2.1.10 Ground Collision Mitigation.** Shade columns shall be wrapped with 2- or 3-inch wide reflective tape that meets Federal Specification L-S-300C. Self-adhesive, self-illuminating tape, which stores energy, or "recharges" with exposed UV-illuminated visible light may be used. Reflective tape must be a solid band, on all columns.

**2.1.11 Dead Load.** Design in accordance with (IAW) ASCE 7-2010.

**2.1.12 Roof.** Roof shall be designed for a minimum live load IAW the ASCE 7, local state, county and city codes, but under no circumstances less than 20 pounds per square foot (psf) in addition to calculated dead loads. Roof areas shall also be designed with both positive and negative wind loads IAW ASCE 7 and local state, county and city codes. Roof shall also be designed for applicable snow loads, which will vary by location. The roof system shall be designed and constructed in a manner to shed water away from the area under the sun shade.

**2.1.13 Jet Blast.** Shall meet the requirements of UFC 3-260-01.

## **2.2 Lighting/Power Specifications.**

**2.2.1 Electrical System.** Electrical system shall be designed and installed IAW the National Electrical Code (NFPA 70), local state, county and city codes. Note, a short circuit analysis shall



be conducted and all devices over 50 volts shall be labeled with arc flash warning labels IAW NFPA 70E, *Standard for Electrical Safe Practices*

**2.2.2 Security Lighting.** Security lighting shall be designed and installed IAW AFI 31-101, *Integrated Defense*, ~~paragraph 6.5.8.~~ Design security lighting IAW the Illuminating Engineering Society (IES) Handbook.

**2.2.3 Obstruction Lighting.** If sun shades are sited within the airfield clearance criteria, obstruction lighting must be designed and installed IAW UFC 3-535-01, *Visual Air Navigation Facilities*, and Engineering Technical Letter (ETL) 11-29, *Use of LED Fixtures in Airfield Lighting Systems on Air Force Installations and Enduring/Contingency Locations*. Red LED obstruction lights are not approved on Air Force installations.

**2.2.4 General Lighting.** Make each sun shade “light-ready” with pre-wiring and cover plates installed. The contractor shall use lighting criteria IAW National Fire Protection Association (NFPA) 70, Article 513; outside Class I locations, local state, county and city codes. All fixture locations shall be at least 5 feet above the highest point of the aircraft assigned to the base where the sun shades are installed.

**2.2.5 Outlets.** Sun shades shall be “outlet-ready” with pre-wiring and cover plates installed.

**2.2.6 Static Grounds.** Design and install static grounds IAW AFI 32-1065, *Grounding Systems*, NFPA 77, local state, county and city codes.

**2.2.7 Electrical Panel.** The contractor shall determine the best location of electrical panels during the design to reduce cost to the Government. The location of the electrical panels shall be approved by the Contracting Officer (CO) or Contracting Officer Representative (COR).

**2.2.8 Base Power Connection.** The contractor will be responsible to connect the sun shade electrical system to the connection point provided by local Civil Engineering.

**2.3 Lightning Protection.** For each sun shade, contractor shall perform a Lightning Risk Assessment IAW NFPA 780, *Standard for Installation of Lightning Protection Systems* to determine the type of lightning protection system (LPS) to install. The LPS must be designed and installed IAW NFPA 780, AFI 32-1065, *Grounding Systems*, AFMAN 91-201, *Explosive Safety Standards*, local state, county and city codes.

## **SECTION B**

### **GENERAL INFORMATION**

#### **1.0 TRANSITION.**

**1.1 Assuming Functional Responsibility.** The CO or COR will assume responsibility for all executable functions, identified in the SOW IAW the contractor's Transition/Phase-In Plan and Phase-Out Plan.

**1.2 Access to Facilities.** The contractor shall be allowed access to government facilities subsequent to transition start date. Access shall not interfere with the work efforts of current contractor or government personnel. CO or COR shall arrange access to ensure interference does not occur.

**1.3 Phase-In Plan.** Submit a final Phase-In Plan to the CO NLT 15 days after contract award. Changes shall be limited to unforeseen conditions occurring prior to transition start.

**1.4 Phase-Out Plan.** Submit a Phase-Out Plan for contract completion tasks when directed by the CO. The requirements for the plan shall be detailed in the CO tasking letter.

**1.5 Work Clearance and Permits.** Coordinate work with the base Aircraft Sun Shade Manager, as required. Obtain digging, welding, and/or paint spraying permits IAW base operating instructions.

#### **2.0 CONTRACTOR.**

**2.1 Contractor Employees.** The contractor shall not allow employees identified by the CO as a potential threat to the health, safety, security, general well-being, or operational mission of the installation or its populace to work on this project.

**2.1.1 National Agency Checks (NAC).** The contractor will perform a credit check (utilizing commercial background and investigate entities) on all employees requiring a current NAC. The results of the background and credit check shall accompany all NAC applications. Employees with unfavorable background or credit history may be denied a favorable NAC. In addition, a favorable/adjudicated NAC is a condition of employment. Therefore, the contractor shall ensure employees who are denied a favorable NAC and/or security clearance do not work under this

contract, due to the sensitive environment/location of the work being performed. The contractor shall provide the local CO a copy of the results of this check on all employees who work on this project within 30 days of contract award.

**2.1.3 Laws, Directives, and Regulations.** The contractor and its employees will comply with the laws, regulations and directives of the appropriate Major Command (MAJCOM).

**2.1.4 Terminations.** The contractor will remove employees from the project who have been identified as potential threat to the health, safety, security, general well-being, operational mission of the installation or its population, or failure to comply with laws, regulations, and directives of the appropriate MAJCOM.

**2.1.5 Conflict of Interests.** Do not employ any person who is an employee of the government if the employment of that person would create a conflict of interest, or the appearance of a conflict of interest.

**2.2 Employee Training.** Develop, implement, and maintain procedures for training, qualifying and certifying employees prior to performance of assigned duties under this contract (i.e., welding, electrical, etc.).

**2.2.1 Records.** Develop and maintain individual training records to document training and test results. Document all initial and supplemental training accomplished in each employee's training record. Maintain each training record at the individual's work location and make available to government representative(s) upon request.

### **3.0 HOURS OF OPERATION.**

**3.1 Duty Hours.** Provide required resources during normal duty hours. Establish normal duty hours that meet the approval of the CO per local base-level procedures.

**3.2 Holidays.** If the holiday falls on a Saturday or Sunday, it may be observed on Friday or Monday as directed. U.S. holidays include (per local base-level procedures):

New Year's Day

Martin Luther King Day

Presidents Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veterans Day

Thanksgiving

Christmas

## **4.0 SAFETY**

**4.1 Contractor Liability.** The contractor shall be liable and responsible for non-compliance of environmental safety and health (ES&H) provisions, and pay fines and fees resulting from improper contractor actions and/or processes.

**4.2 Safety and Health (S&H) Program.** Establish responsibilities and procedures required to effectively administer conformance with Air Force Occupational Safety and Health (AFOSH), Occupational Safety and Health Administration (OSHA), and AF Safety Instructions.

**4.3 Spill Notification.** Notify the CO and the base Aircraft Sun Shade Manager immediately of any pollution incident, as per base requirements.

**4.4 Safety Notification and Reporting.** Notify the CO and the base Aircraft Sun Shade Manager of any mishap involving contractor personnel, AF assets, or AF operations, which result in injury, illness, or damage. Establish internal mishap notification procedures and brief all contractor personnel. Document the mishap notification briefing as part of initial safety orientation. Document and report any mishap using local base procedures. Provide a copy of all mishap reports to the CO and the base Aircraft Sun Shade Manager. Injuries to contractor personnel shall be reported IAW OSHA requirements. Maintain copies of all mishap reports for one year.

## **5.0 SECURITY**

**5.1 Identification and Credentials.** Employees shall wear reflective vests while operating on the flight line. The contractor shall ensure all employees have the legal right to perform work within the United States, and can pass appropriate security checks. All contractor employees shall properly identify themselves as contractors during official communication and possess the appropriate identification for a contractor employee.

**5.2 Government-Furnished Security Training.** All contractor personnel shall receive base-specific security training from the base COR and/or unit Security Manager for restricted access areas prior to being granted access to restricted areas.

**5.3 Escorting.** Contractor personnel without appropriate security clearance shall be escorted by authorized personnel within controlled areas.

**5.4 Retrieving Identification Media.** The contractor will turn-in all identification media, including vehicle pass to the CO or COR upon termination of employment. The CO or COR will provide security termination briefings IAW Department of Defense (DoD) 5200.1. Enclosure 5 (9), and AF Form 2587 according to Air Force Instruction (AFI) 31-401, Section 8E.

**5.5 Traffic Laws.** The contractor and its employees will comply with installation traffic regulations.

**5.6 Weapons, Firearms and Ammunition.** Contractor employees shall not possess weapons, firearms, or ammunition on themselves, or within any vehicle, while on a United States Air Force Base/Installation.

**5.7 Computer Security.** If required, all contractor personnel shall obtain a favorable National Agency Check (NAC) and complete the Information Assurance Awareness Computer-Based Training (CBT) prior to gaining access to ".mil" or ".smil" domains IAW AFI 33-200 and AFI 33-115 Vol.2, chapter 5. CBT is located at ([https://www.smartforce.com/learning\\_community/Custom/USAF/login.asp](https://www.smartforce.com/learning_community/Custom/USAF/login.asp)). Additional user training may be developed locally to reflect local needs and concerns.

**5.8 Photography.** Contractor shall ensure no photographic equipment is permitted on the flight line by their personnel. If needed in the performance of their duties, contractor shall follow local base policies prior to taking photographs.

**5.9 Reporting.** Report to the CO or base Aircraft Sun Shade Manager any information or circumstances that may pose a threat to the security of DoD personnel, contractor personnel, or government resources (format to be determined by the CO or Aircraft Sun Shade Manager) within 24-hours of the incident.

## **SECTION C**

### **WARRANTY**

#### **1.0 WARRANTY.**

**1.1 Sun Shade(s) System Warranty.** The contractor will furnish a manufacturer's no-dollar-limit warranty for the aircraft sun shade(s). The warranty period shall be no less than 5 years and no greater than 10 years from the date of acceptance of sun shade(s) installation by the Government. The warranty shall provide that if within the warranty period, the sun shade(s) shows evidence of deterioration resulting from defective materials and/or workmanship, correction of any defects is the responsibility of the sun shade(s) manufacturer. Repairs that become necessary because of defective materials and/or workmanship while sun shade(s) is under warranty are to be performed within timeframes stated in 2.3.3 of this SOW unless additional time is approved by the CO. Failure to perform repairs within timeframes stated in paragraph 2.3.3 of this SOW shall constitute grounds for having emergency repairs performed by others at the expense of the contractor and shall not void the warranty.

**1.2 Roof System Weather-Tightness Warranty.** The contractor will furnish manufacturer's no-dollar-limit warranty for the roof system. The warranty period shall be no less than 5 years and no greater than 10 years from the date of acceptance of sun shade(s) installation by the Government. The warranty shall provide that if within the warranty period, the roof panel system shows evidence of corrosion, perforation, rupture, loss of weather-tightness or excess weathering due to deterioration of the panel system resulting from defective materials, correction of the defective workmanship is to be the responsibility of the sun shade(s) manufacturer. Repairs that become necessary because of defective materials and workmanship while roof panel system is under warranty are to be performed within timeframes stated in 2.3.3 of this SOW unless additional time is approved by the CO. Failure to perform repairs within timeframes stated in 2.3.3 of this SOW shall constitute grounds for having emergency repairs performed by others at the expense of the contractor and shall not void the warranty.

**1.3 Roof and Structure Finish Warranty.** The contractor will furnish manufacturer's no-dollar-limit warranty for the metal panel system. The warranty period shall be no less than 5 years and no greater than 10 years from the date of acceptance of sun shade(s) installation by the Government. The warranty shall provide that if within the warranty period, the structure shows evidence of checking, delaminating, cracking, peeling or excess weathering due to deterioration of the structure resulting from defective materials and finish, correction of the defective workmanship is to be the responsibility of the sun shade(s) manufacturer. Liability under this warranty is exclusively limited to replacing the defective coated materials. Repairs that become necessary because of defective materials and/or workmanship while roof and structure is under warranty shall be performed within timeframes stated in 2.3.3 of this SOW, unless additional

time is approved by the CO. Failure to perform repairs within timeframes stated in 2.3.3 of this SOW shall constitute grounds for having emergency repairs performed by others at the expense of the contractor and shall not void the warranty. Repair of protective coatings and painted surfaces must be compatible to formula and color specified by the panel manufacturer, or conforming to American Society for Testing and Materials (ASTM) A780/A780M.

## **2.0 SERVICE WARRANTY.**

**2.1 Responsibilities.** The contractor will furnish manufacturer's no-dollar-limit warranty for the servicing of the sun shade. The warranty period shall be no less than 5 years or greater than 10 years from the date of acceptance of sun shade(s) installation by the Government. The government reserves the right to verify all SOW service warranty requirements to determine whether the contractor is conforming to and meeting these requirements. The warranty shall provide that at a minimum, the contractor will accomplish the following, to support sun shade maintenance requirements:

**2.1.1 Inspect, Report, Document.** Inspect for, report and document:

- a) Inherent structural weakness
- b) Corrosion
- c) Improper installation
- d) Design defect
- e) Electrical defect
- f) Weather (turbulence) related damage
- g) Improper use
- h) Destruction
- i) Failure (signs of or evidence of electrical, structural or mechanical failure)
- j) Severed item
- k) Evidence of stress/buckling/fatigue/etc.
- l) Missing hardware
- m) Loose hardware
- n) Wildlife intrusion
- o) Other discrepancies

**2.1.2 Preventative Maintenance Plan (PMP).** The contractor will submit a document that provides details for how the contractor shall address all sub-paragraphs in Section C, Paragraphs 2.2 and 2.3 of the SOW, to include how sun shades shall be maintained, and perform preventive maintenance of sun shades IAW this plan.

## **2.2 Maintenance Documentation.**

**2.2.1 Documentation.** The contractor shall maintain and submit maintenance documentation to the base-level COR, per Microsoft Excel spreadsheet format in Appendix D. Maintenance documentation shall include sun shade condition (serviceable/unserviceable – see definition),

scheduled and unscheduled maintenance activities, discrepancies, corrosion control actions, repairs needed, corrective actions, identified trends in discrepancies, and metrics. All documentation shall be considered an integral part of this contract and shall be non-proprietary in nature. This documentation shall be submitted quarterly, if any activities have been performed or changed pertaining to Section C, Paragraph 2.3 of the SOW. If no activities have been performed, documentation submission is not required.

**2.2.1.1 Metrics.** The contractor will track and report, the number of sun shades serviceable, needing repairs, number of repairs performed and service call response times by category. The contractor may submit additional recommended metrics and improvement efforts.

**2.2.1.2 Documentation of Paint and Coating Use.** The contractor shall maintain a complete history of use of paint and any other protective coating. Documentation shall include the date of the use, type and amount of product used to include any brand name, process used, specific location where product was applied, and the contractor that performed the work.

**2.2.2 Requirements.** The contractor shall perform tasks, in the following order: manufacturers' inspection/maintenance/repair procedures, industry standards and best practices. Performance of tasks shall follow applicable federal, state and local building code and regulations, or equivalent military standard UFC and Unified Facilities Guide Specifications (UFGS).

**2.2.3. Reference Material.** The contractor will maintain copies of applicable sun shade manuals, drawings, specifications, etc. for use in inspection, preventive maintenance, and or repair. The contractor will provide copies to the installation CO.

## **2.3 Planned Work.**

**2.3.1 Annual Inspection.** The contractor will perform and report Annual Inspections IAW manufacturer's recommended inspection procedures and/or industry standards or best practices for the following, but not limited to: lightning protection systems, sun shade structure and lighting. The contractor shall submit annual inspection documentation to the base COR, using Microsoft Excel spreadsheet format in Appendix E, Annual Inspection Report.

**2.3.2 Customer Service.** The contractor shall incorporate customer-provided work requests within scheduled maintenance activities.

**2.3.2.1 Scheduling.** Schedule work with the base Aircraft Sun Shade Manager to minimize disruption to mission requirements. Coordinate inspections, maintenance, and or repair work NLT 30 calendar days before work is scheduled.



**2.3.2.2 Disruption.** Coordinate disruptions with the base Aircraft Sun Shade Manager prior to starting work. Provide notification, at least five working days, prior to disruption (e.g. Power outage, blocked access, inspection process, maintenance process, repair process, cleaning, and or spraying). Disruptions shall provide the least amount of customer inconvenience. Notify the base Aircraft Sun Shade Manager (format to be provided by the Aircraft Sun Shade Manager) within 24-hours of expected downtime due to disruption.

**2.3.3 Work Priorities.** The contractor shall include, in maintenance documentation, procedures for assessing, scheduling and performing emergency, urgent, and routine corrective maintenance as follows:

**2.3.3.1 Emergency Maintenance.** Emergency maintenance is classified as an immediate response to repair hardware or structural failure that renders the sun shade unserviceable and/or unsafe, as determined and reported by the CO or COR. Scope shall be limited to work necessary to eliminate the emergency condition (i.e., investigation and temporary repair, except where permanent repair is more practical). The contractor shall have the capability to assess the emergency condition within 2 hours of notification. The contractor shall initiate actions necessary to render the sun shade safe within 24 hours of assessment, unless a waiver has been obtained from the CO. For events so catastrophic that 24-hour alleviation is not possible, a waiver may become automatic, as approved by the CO, with guidance from the WG/CC. Once the emergency condition has been alleviated, the condition shall be re-categorized as urgent or routine (if applicable).

**2.3.3.2 Urgent Maintenance.** Urgent maintenance is classified as a condition that, if not acted upon immediately, is likely to create an emergency maintenance situation. The contractor shall have the capability to assess the urgent condition within 24 hours of notification. The contractor shall initiate urgent action repairs within 48 hours of assessment, and complete urgent work within five days of notification unless a waiver has been obtained from the CO.

**2.3.3.3 Routine Maintenance.** Routine maintenance is classified as all other maintenance actions. The contractor shall incorporate routine maintenance into a planned work schedule.

**2.3.4 Estimated Time to Repair (ETR).** The contractor will establish an ETR for sun shade repairs. Provide initial notice to COR and update as changes occur within 8 hours of a known change from the planned schedule.

**2.3.5 Maintenance and Repair (M&R).** M&R shall be performed for planned and contracted work, to include customer-submitted work requests (format to be provided by contractor). Execute all routine M&R work not exceeding \$2,500 (Services micro-purchase threshold) per inspection, maintenance, or repair action. Any actions over this threshold should be proposed by the contractor and approved by the CO prior to execution.

## **SECTION D**

### **GOVERNMENT-FURNISHED PROPERTY AND SERVICES**

#### **1.0 GOVERNMENT-FURNISHED PROPERTY (GFP) AND SERVICES.**

**1.1 General Information.** The government provides no equipment or vehicles.

**1.2 Government-Furnished Training.** Government-provided training shall be identified and provided by the unit (i.e., flight line driving certification), and per Section B, Paragraph 5.2 of the SOW.

////////////////////////////////////END OF DOCUMENT////////////////////////////////////

## **APPENDIX A**

### **REFERENCES**

#### **1.0 AIR FORCE INSTRUCTIONS.**

AFI 31-101, *Integrated Defense*

AFI 32-1023 ACCSUP1, *Design and Construction Standards and Execution of Facility Construction Projects*

AFI 32-1065, *Grounding Systems*

AFOSH 91-100, *Aircraft Flight Line – Ground Operations and Activities*

AFMAN 91-201, *Explosive Safety Standards*

#### **2.0 AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).**

AISC 325, *Steel Construction Manual*

ANSI/AISC 341, *Seismic Provisions for Structural Steel Buildings*

ANSI/AISC 360, *Specification for Structural Steel Buildings*

#### **3.0 AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE).**

ASCE 7-2010, *Minimum Design Loads for Buildings and Other Structures*

ASCE 19-10, *Structural Applications of Steel Cables for Buildings*

#### **4.0 AMERICAN WELDING SOCIETY (AWS).**

AWS A5.1/A5.1M, *Specification for Carbon Steel Electrodes for Shielded Metal Arc Welding*

AWS D1.1/D1.1M, *Structural Welding Code- Steel*

AWS D1.3/D1.3M, *Structural Welding Code- Sheet Steel*

#### **5.0 ASTM INTERNATIONAL (ASTM).**

ASTM A780/A780M, *Standard Practice for Repair of damaged and Uncoated Areas of Hot-Dip Galvanized Coatings*

**6.0 ENGINEERING TECHNICAL LETTER (ETL).**

ETL 11-29, *Use of LED Fixtures in Airfield Lighting Systems on Air Force Installations and Enduring/Contingency Locations*

**7.0 ILLUMINATING ENGINEERING SOCIETY (IES) HANDBOOK.**

**8.0 INTERNATIONAL BUILDING CODE (IBC) 2012.**

**9.0 METALS BUILDING MANUFACTURERS ASSOCIATION (MBMA).**

MBMA MBSM, *Metal Building Systems Manual*

**10.0 NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS (NAAMM).**

NAAMM AMP 500, *Metal Finishes Manual*

**11.0 NATIONAL FIRE PROTECTION CODE (NFPA).**

NFPA 70, *National Electrical Code*

NFPA 77, *Recommended Practice on Static Electricity*

NFPA 780, *Standard for Installation of Lightning Protection Systems*

**12.0 UNIFIED FACILITIES CRITERIA (UFC).**

UFC 3-260-01, *Airfield Planning and Design*

UFC 3-301-01, *Structural Engineering*

UFC 3-310-04, *Seismic Design for Buildings*

UFC 3-535-01 *Visual Air Navigation Facilities*

## **APPENDIX B**

### **DEFINITIONS**

**Configuration Management** – physical attributes or characteristics. Installation of original hardware/equipment.

**Contracting Officer Representative (COR)** – typically the Aircraft Sun Shade Manager, unless otherwise appointed by the MXG/CC.

**Corrosion** – the electrochemical oxidation of metals in reaction with an oxidant such as oxygen. Can occur in any environment.

**Dead Load** – includes loads that are relatively constant over time, including the weight of the structure itself, and immovable fixtures such as walls, plasterboard or carpet.

**Fatigue** – the progressive and localized structural damage that occurs when a material is subjected to cyclic loading.

**Fracture** – the (local) separation of an object or material into two, or more, pieces under the action of stress.

**Fraying** – to strain; chafe. To wear away (the edges of fabric, for example) by rubbing. To become worn away or tattered along the edges. A frayed or threadbare spot, as on fabric.

**Hardware** – a general term for items such as fasteners, bolts, washers, wire, turn buckles, etc.

**Metal sun shades** – both the Roof and the structure (frame) will be made of galvanized steel.

**No Limit Warranty** – a warranty that has no limitations on monetary responsibility. Some warranties are pro-rated, meaning the coverage is reduced proportionately depending on how many years it has been since installation.

**Performance Work Statement (PWS)** – specifies the government's requirements for services to be performed.

**Serviceable** – safe for use and discrepancies do not pose a hazard to personnel, equipment and/or aircraft.

**Statement of Work (SOW)** – a formal document that captures and defines the work activities, deliverables, and timeline a vendor must execute in performance of specified work for a client.

**Structural Failure** – loss of the load-carrying capacity below manufacturer's design. Can refer to a component or member within a structure or of the structure itself.

**Unserviceable** – presents a danger to personnel, equipment and/or aircraft.

**Wear** – erosion or sideways displacement of material from its "derivative" and original position on a solid surface performed by the action of another surface. Wear is related to interactions between surfaces and more specifically the removal and deformation of material on a surface as a result of mechanical action of the opposite surface.

## APPENDIX C

### DELIVERABLES

DELIVERABLE	SOW REFERENCE	DUE DATE
Preventative Maintenance Plan (PMP)	Section C.2.1.2	60 days after contract award
Quarterly Maintenance Documentation	Section C.2.2.1	Quarterly
Work Schedules	Section C.2.2.3	NLT 30 days before work is scheduled
Phase-In Plan	Section B.1.3	15 days after contract award
Phase-Out Plan	Section B.1.4	Per CO request

## APPENDIX D

# SUN SHADE MAINTENANCE DOCUMENT

[illegible]



## APPENDIX E

## ANNUAL SUN SHADE MAINTENANCE DOCUMENT

[illegible]

**Attachment 3**

**(Sample PWS)**

**PERFORMANCE WORK STATEMENT (PWS)  
FOR  
EXISTING AIRCRAFT SUN SHADE SUSTAINMENT  
DD MM YYYY**

## **TABLE OF CONTENTS**

### **SECTION A            DESCRIPTION OF SERVICES**

#### **6.0     SCOPE OF WORK**

- 1.1     Background
- 1.2     Mission
- 1.3     Scope

#### **7.0     PROGRAM MANAGEMENT**

- 2.1     Responsibilities
- 2.2     Maintenance Documentation
- 2.3     Planned and Contract Work

#### **8.0     SAFETY**

- 3.1     Contractor Liability
- 3.2     Spill Notification
- 3.3     Safety and Health Program
- 3.4     Safety Notification and Reporting

#### **9.0     SECURITY**

- 4.1     Identification and Credentials
- 4.2     Government-Furnished Security Training
- 4.3     Escorting
- 4.4     Retrieving Identification Media
- 4.5     Traffic Laws
- 4.6     Weapons, Firearms and Ammunition
- 4.7     Reporting
- 4.8     Computer Security

#### **10.0    PERFORMANCE MANAGEMENT**

- 5.1     Performance Management
- 5.2     Quality Control Manager

- 5.3 Performance Evaluation
- 5.4 Performance Evaluation Meetings, Conferences and Workshops

## **SECTION B SERVICES SUMMARY**

### **1.0 SERVICES SUMMARY**

- 1.1 Purpose
- 1.2 Components
- 1.3 Quality Assurance Surveillance Plan (QASP)
- 1.4 Right to Surveil
- 1.5 Services Summary Table

## **SECTION C GOVERNMENT-FURNISHED PROPERTY AND SERVICES**

### **1.0 GOVERNMENT-FURNISHED PROPERTY AND SERVICES**

- 1.1 General Information
- 1.2 Government-Furnished Training

## **SECTION D GENERAL INFORMATION**

### **1.0 TRANSITION**

- 1.1 Assuming Functional Responsibility
- 1.2 Access to Facilities
- 1.3 Phase-In Plan
- 1.5 Joint Inspection
- 1.6 Existing Conditions
- 1.7 Phase-Out Plan

### **2.0 CONTRACTOR PERSONNEL**

- 2.1 Contractor Employees
- 2.2 Employee Training

### **3.0 HOURS OF OPERATION**

- 3.1 Duty Hours

3.2 Holiday

**SECTION E            APPENDICES**

Appendix A    Definitions

Appendix B    Deliverables

Appendix C    Maintenance Documentation

Appendix D    Annual Inspection Report

## **SECTION A**

### **DESCRIPTION OF SERVICES**

#### **3.0 SCOPE OF WORK.**

**1.1 Background.** Preventative Maintenance is the basis of Air Combat Command's policy for aircraft sun shade sustainment. The government's objective is to maintain safe and reliable aircraft sun shades.

**1.2 Mission.** The contractor shall sustain aircraft sun shades through scheduled inspections, preventive maintenance and repair of deficiencies.

**1.3 Scope.** The scope of this service is to support existing aircraft sun shades. The Contractor shall inspect, maintain and repair aircraft sun shades, to include: structure, fabric (as applicable), lights, electric, bird nesting mitigation, lightning protection, obstruction lighting, safety reflective devices, fall protection, and any other base-unique attached features, as applicable. The contractor shall provide documentation of inspection, maintenance, and repair.

#### **2.0 PROGRAM MANAGEMENT.**

**2.1 Responsibilities.** At a minimum, accomplish the following, to support aircraft sun shade maintenance requirements.

**2.1.1 Inspect, Report, Document.** Inspect for, report and document:

- a) Inherent structural weakness
- b) Corrosion
- c) Improper installation
- d) Design defect
- e) Electrical defect
- f) Weather (turbulence) related damage
- g) Improper use
- h) Destruction
- i) Failure (signs of or evidence of electrical, structural or mechanical failure)
- j) Severed item
- k) Evidence of stress/buckling/fatigue/etc.
- l) Fabric tears/rips/rot/etc.
- m) Missing hardware
- n) Loose hardware
- o) Wildlife intrusion

p) Other discrepancies

**2.1.2 Preventative Maintenance Plan (PMP).** Submit a document that provides details for how the contractor shall address all sub-paragraphs in sections 2.2 and 2.3 of the PWS, to include how aircraft sun shade configurations shall be maintained, and perform preventive maintenance of aircraft sun shades in accordance with this plan. The PMP shall be submitted to the Contracting Officer (CO) NLT 60-days after contract award, and shall be non-proprietary.

**2.1.3 Requests.** Respond to CO requests within CO-requested timeframe. Extensions to CO-requested timeframes shall be approved by the CO prior to the needed extension. (Per unit-specified timeframe)

**2.1.4 Problem Management.** Identify, document, and notify the government of actual or potential contractor program management problems and deficiencies, and report unresolved problems to the CO. Report site-specific problems affecting maintenance accomplishment and/or contractor performance to CO or Contracting Officer's Representative (COR).

**2.1.4.1 Corrective Action Priority.** Perform corrective action IAW paragraph 2.3.4.

**2.1.5 Meetings.** Support meetings convened at the direction of the CO. The government shall reimburse the contractor for any government-directed travel requirements to support conferences, meetings, and/or reviews outside of the local commuting area. All travel shall be reimbursed IAW the contract. Frequency and method of meetings shall be determined by the CO.

**2.1.6 Significant Incident Notification Procedure.** Inform the CO within 24 hours of becoming aware of an incident that involves a contractor's employee that may subject the employee, the contractor, or the government to either potential civil or criminal liability.

**2.1.7 Compliance.** The contractor shall comply with all applicable base regulations/instructions.

**2.1.8 Personnel.** Ensure that only qualified personnel perform inspection, maintenance and repair of aircraft sun shades.

**2.1.8.1 Site Management.** Provide a single point of contact (POC) for management of all aircraft sun shade activities.

## **2.2 Maintenance Documentation.**

**2.2.1 Documentation.** The contractor shall maintain and submit maintenance documentation to the base Aircraft Sun Shade Manager, per Microsoft Excel spreadsheet format in Appendix C, Maintenance Documentation. Maintenance documentation shall include aircraft sun shade condition (serviceable/unserviceable – see definition), scheduled and unscheduled maintenance activities, discrepancies, corrosion control actions, repairs needed, corrective actions, identified trends in discrepancies, and metrics. All documentation shall be considered an integral part of this contract and shall be nonproprietary in nature. This documentation shall be submitted quarterly, if any activities have been performed or changed that pertain to section 2.3 of the PWS. If no activities have been performed, documentation submission is not required.

**2.2.1.1 Metrics.** Track and report, the number of aircraft sun shades serviceable, needing repairs, number of repairs performed and service call response times by category. The contractor may submit additional recommended metrics and improvement efforts.

**2.2.1.2 Reference Material.** Maintain copies of applicable aircraft sun shade manuals, drawings, specifications, etc. for use in inspection, preventive maintenance, and or repair. Provide copies to the CO, as requested.

**2.2.1.3 Documentation of Paint and Coating Use.** The contractor shall maintain a complete history of use of paint and any other protective coating. Documentation shall include the date of the use, type and amount of product used to include any brand name, process used, specific location where product was applied, and the contractor that performed the work. Provide documentation to the CO, as requested.

**2.2.2 Requirements.** The contractor shall perform tasks IAW manufacturers' recommended inspection, maintenance, and or repair procedures, or industry standards, or best practices, (in that order) and be IAW applicable federal, state and local building code and regulations, or equivalent military standard Unified Facilities Criteria (UFC) and Unified Facility Guide Specifications (UFGS). Advise the CO of any conflicts/ambiguities in the various documents before beginning any task.

**2.2.3 Alternate Procedures.** The contractor may propose alternate maintenance procedures as a cost saving initiative or enhancement to inspection and or maintenance accomplishment. These procedures include deviations from preventive maintenance requirements when supported by technical analysis, test results, and documented conclusions. The CO shall approve all contractor-proposed deviations from preventive maintenance requirements prior to implementation.



## **2.3 Planned Work.**

**2.3.1 Annual Inspection.** Perform and report Annual Inspections IAW manufactures' recommended inspection procedures and/or industry standards or best practices for the following, but not limited to: lightning protection systems, aircraft sun shade structure, and lighting. The contractor shall submit annual inspection documentation to the base Aircraft Sun Shade Manager, per Microsoft Excel spreadsheet format in Appendix D, Annual Inspection Report. This shall be submitted NLT 30-days after the inspection is accomplished.

**2.3.2 Maintenance and Repair (M&R).** M&R shall be performed for planned and contracted work, to include customer-submitted work requests (format to be provided by contractor). Execute all routine M&R work not exceeding \$2,500 (Services micro-purchase threshold) per inspection, maintenance, or repair action. Any actions over this threshold should be proposed by the contractor and approved by the CO prior to execution.

**2.3.3 Customer Service.** The contractor shall incorporate customer-provided work requests within scheduled maintenance activities.

**2.3.3.1 Scheduling.** Schedule work with the base Aircraft Sun Shade Manager to minimize disruption to mission requirements. Coordinate inspections, maintenance, and or repair work NLT 30 calendar days before work is scheduled.

**2.3.3.2 Disruption.** Coordinate disruptions with the base Aircraft Sun Shade Manager prior to starting work. Provide notification, at least five working days, prior to disruption (e.g. , power outage, blocked access, inspection process, maintenance process, repair process, cleaning, and or spraying). Disruptions shall provide the least amount of customer inconvenience. Notify the base Aircraft Sun Shade Manager (format to be provided by the Aircraft Sun Shade Manager) within 24-hours of expected downtime due to disruption.

**2.3.4 Work Priorities.** The contractor shall include, in maintenance documentation, procedures for assessing, scheduling and performing emergency, urgent, and routine corrective maintenance (CM) as follows:

**2.3.4.1 Emergency Maintenance.** Emergency maintenance is classified as an immediate response to repair hardware or structural failure that renders the aircraft sun shade unserviceable and/or unsafe. Scope shall be limited to work necessary to eliminate the emergency condition (i.e., investigation and temporary repair, except where permanent repair is more practical). The contractor shall have the capability to assess the emergency condition within 2 hours of notification. The contractor shall initiate actions necessary to render the aircraft sun shade safe within 24 hours of assessment, unless a waiver has been obtained from the CO. For events so

catastrophic that 24-hour alleviation is not possible, a waiver may become automatic, as approved by the CO, with guidance from the WG/CC. Once the emergency condition has been alleviated, the condition shall be re-categorized as urgent or routine (if applicable).

**2.3.4.2. Urgent Maintenance.** Urgent maintenance is classified as a condition that if not acted upon immediately and is likely to create an emergency maintenance situation. The contractor shall have the capability to assess the urgent condition within 24 hours of notification. The contractor shall initiate urgent action repairs within 48 hours of assessment, and complete urgent work within five days of notification unless a waiver has been obtained from the CO.

**2.3.4.3 Routine Maintenance.** Routine maintenance is classified as all other maintenance actions. The contractor shall incorporate routine maintenance into a planned work schedule.

**2.3.5 Estimated Time to Repair (ETR).** Establish an ETR for aircraft sun shade repairs. Provide written status as changes occur and provide to base Aircraft Sun Shade Manager within 8 hours of a known change from the planned schedule.

**2.3.6 Work Clearance and Permits.** Coordinate work with the base Aircraft Sun Shade Manager, as required. Obtain digging, welding, and/or paint spraying permits IAW base operating instructions.

### **3.0 SAFETY**

**3.1 Contractor Liability.** The contractor shall be liable and responsible for non-compliance of environmental safety and health (ES&H) provisions, and pay fines and fees resulting from improper contractor actions and/or process.

**3.2 Spill Notification.** Notify the CO and the base Aircraft Sun Shade Manager immediately of any pollution incident, as per base requirements.

**3.3 Safety and Health (S&H) Program.** Establish responsibilities and procedures required to effectively administer conformance with Air Force (AF) Occupational Safety and Health (AFOSH), Occupational Safety and Health Administration (OSHA), and AF Safety Instructions.

**3.4 Safety Notification and Reporting.** Notify the CO and the base Aircraft Sun Shade Manager of any mishap involving contractor personnel, AF assets, or AF operations, which result in injury, illness, or damage. Establish internal mishap notification procedures and brief all contractor personnel. Document the mishap notification briefing as part of initial safety orientation. Document and report any mishap using local base procedures. Provide a copy of all

mishap reports to the CO and the base Aircraft Sun Shade Manager. Injuries to contractor personnel shall be reported IAW OSHA requirements. Maintain copies of all mishap reports for one year.

## **4.0 SECURITY**

**4.1 Identification and Credentials.** All contractor employees shall properly identify themselves as contractors during official communication and possess the appropriate identification for a contractor employee. Employees shall wear reflective vests while operating on the flight line. The contractor shall ensure all employees have the legal right to perform work within the United States, and can pass appropriate security checks.

**4.2 Government-Furnished Security Training.** All contractor personnel shall receive base-specific security training from the base Aircraft Sun Shade Manager and or unit Security Manager for restricted access areas prior to being granted access to restricted areas.

**4.3 Escorting.** Contractor personnel without appropriate security clearance shall be escorted by authorized personnel within controlled areas.

**4.4 Retrieving Identification Media.** Retrieve all identification media, including vehicle pass, from contractor employees upon termination of employment; provide security termination briefings IAW Department of Defense (DoD) 5200.1-R. section C9.5, and AF Form 2587 according to Air Force Instruction (AFI) 31-401, Section 8E.

**4.5 Traffic Laws.** Comply with installation traffic regulations.

**4.6 Weapons, Firearms, and Ammunition.** Contractor employees shall not possess weapons, firearms, or ammunition on themselves, or within any vehicle, while on a United States Air Force Base/Installation.

**4.7 Reporting.** Report to the CO or base Aircraft Sun Shade Manager any information or circumstances that may pose a threat to the security of DoD personnel, contractor personnel, or government resources (format to be determined by the CO or aircraft sun shade Manager) within 24-hours of the incident.

**4.8 Computer Security.** All contractor personnel shall obtain a favorable National Agency Check (NAC) and complete the Information Assurance Awareness Computer-Based Training (CBT) prior to gaining access to ".mil" or ".smil" domains IAW AFI 33-202 and AFI 33-115 Vol.2, chapter 5. CBT is located at [https://www.smartforce.com/learning\\_community/Custom/USAF/login.asp](https://www.smartforce.com/learning_community/Custom/USAF/login.asp)). Additional user

training may be developed locally to reflect local needs and concerns.

**4.9 Photography.** Contractor shall ensure no photographic equipment is permitted on the flightline by their personnel. If needed in the performance of their duties, contractor shall follow local base policies prior to taking photographs.

## **5.0 PERFORMANCE MANAGEMENT.**

**5.1 Performance Management.** The contractor shall develop, document, implement, maintain, and continuously improve a comprehensive Quality Control Plan (QCP) that assures compliance with all PWS requirements of the PWS in general and specifically those items identified in the service summary table (Section B, Table 1.5). The QCP shall address frequency/interval, numbers and types of quality control (QC) inspections, the qualifications of personnel accomplishing those tasks, and how the contractor shall control the quality of any subcontractors. The contractor shall submit the QCP to the CO NLT 45 days after transition start.

**5.2 Quality Control Manager.** The contractor's Quality Control Manager shall lead the contractor's quality control efforts in establishing and implementing the QCP. The contractor shall train personnel in effective methods and techniques for inspecting the contractor's conformance to requirements. The contractor shall act as the focal point for inspections, analysis of inspection results, and corrective actions and reports.

**5.3 Performance Evaluation.** Contractor performance outputs are subject to surveillance by a government COR to ensure PWS compliance. At a minimum, the contractor shall:

**5.3.1 COR/CO Access.** Allow COR(s) access to work areas and data, provide support, and not interfere with the CORs, State, Federal, and other designated personnel in the performance of their official duties. Permit the CO or authorized representative access to all records, data, and facilities used in the performance of the contracted services. Access shall be provided as soon as possible, but is not to exceed one workday of the request. Extensions shall be approved by the CO prior to the needed extension.

**5.3.2 Non-Conformances.** Take effective corrective action(s) for any non-conformance identified during internal or government surveillance.

**5.4 Performance Evaluation Meetings, Conferences, and Workshops.** Meet with the CO, COR, and other government personnel, on a periodic basis or as deemed necessary. The contractor may request a meeting with the CO when it is believed that such a meeting is necessary. The government may require meeting with the contractor to discuss compliance, performance, improvement, quality, and/or training opportunities. The purpose of these meetings is to foster proactive continuous improvement by analyzing past performance problems

as well as exceptional performance levels. These meetings shall review the contractor's Quality Management System (QMS) effort and the government's Quality Assurance (QA) function focusing on improving performance. The use of DOD and industry best practices and quality tools/methods should be explored and implemented whenever possible. The government shall provide meeting minutes.

## **SECTION B**

### **SERVICE SUMMARY**

**1.0 SERVICE SUMMARY (SS).** This SS identifies critical success factors for the contract. The SS items are listed in Table 1.5.

**1.1 Purpose.** The SS lists performance objectives for the required services the government shall surveil. The absence of any contract requirement from the SS shall not detract from its enforceability nor limit the rights or remedies of the government under any other provision of the contract including the clauses entitled “Inspection of Services” and “Default.”

**1.2 Components.** The SS states the performance objective (required service), and threshold (performance standard, accept and reject points, if applicable, in either a qualitative or quantitative fashion) for each critical success factor.

**1.3 Quality Assurance Surveillance Plan (QASP).** The QASP identifies the audit methods and procedures the government shall use to evaluate the contractor's performance.

**1.4 Right to Surveil.** The government reserves the right to surveil all PWS services and requirements to determine whether the contractor is conforming to requirements and meeting performance objectives, standards, and thresholds.

**1.4.1 Major Non-conformance.** A major non-conformance is one that adversely impacts (or has the potential) mission, safety of personnel and/or equipment, environment, performance (quality), schedule (delivery), and/or cost. The CO shall communicate major non-conformances to the contractor on a Corrective Action Request (CAR) form with a suspense date for the contractor’s corrective action plan. As a minimum, the contractor’s action plan shall address:

1. Action(s) taken to fix the problem (correction)
2. Root cause analysis of the problem
3. Corrective action(s) on the cause of the problem
4. Action(s) taken to prevent recurrence

**1.4.2 Minor Non-conformance.** A minor non-conformance is a non-conformance, which by itself does not adversely impact mission, safety of personnel and/or equipment, performance (quality), schedule (delivery), or cost. Minor non-conformances are communicated through notices; first notices are issued for any identified minor non-conformance, second notices are issued for repeat minor non-conformances or failing to correct minor non-conformance issues within a reasonable amount of time. A formal corrective action plan is not required for notices.

### 1.5. Services Summary Table.

PERFORMANCE OBJECTIVE	PERFORMANCE STANDARD	PERFORMANCE THRESHOLD
<b><u>Maintenance:</u></b>		
Maintain aircraft sun shade IAW original equipment manufacturer (OEM) specifications	IAW original equipment manufacturer (OEM) specifications	No major non-conformances allowed
Scheduled Maintenance	Completed and documented 100% of the time	No major non-conformances allowed
<b><u>Repair:</u></b>		
Completed on time/on budget as proposed	Completed on time/on budget as proposed	90% Success Rate with 100% success upon initial rework
Emergency Assessment Response	2 hours	100% Success Rate**
	24 hours	100% Success Rate**
Initiate Emergency Repair	24 hours	90% Success Rate**
Urgent Assessment Response	48 hours	90% Success Rate**
Initiate Urgent Repair	5 days	90% Success Rate**
Urgent Repair Completion		
Routine Repair	IAW contractor's PMP	
Estimated Time to Repair (ETR)	Contractor Estimate	+ 10% of contractor Estimate

\*\* Per section 2.3.4

## **SECTION C**

### **GOVERNMENT-FURNISHED PROPERTY AND SERVICES**

#### **1.0 GOVERNMENT-FURNISHED PROPERTY (GFP) AND SERVICES.**

**1.1 General Information.** The government provides no equipment or vehicles.

**1.2 Government-Furnished Training.** Government-provided training shall be identified and provided by the unit (i.e., flight line driving certification), and per section 4.2 of the PWS.

**1.3 Manufacturer's Information.** The government shall provide available manufacturer's information related to aircraft sun shades; however the contractor is ultimately responsible for care and maintenance of the aircraft sun shades.



## **SECTION D**

### **GENERAL INFORMATION**

#### **1.0 TRANSITION.**

**1.1 Assuming Functional Responsibility.** Assume responsibility for all executable functions, identified in the PWS IAW the contractor's Transition/Phase-In Plan and Phase-Out Plan.

**1.2 Access to Facilities.** The contractor shall be allowed access to government facilities subsequent to transition start date. Access shall not interfere with the work efforts of current contractor or government personnel. CO shall arrange access to ensure interference does not occur. The contractor shall be able to familiarize personnel with aircraft sun shades.

**1.3 Phase-In Plan.** Submit a final Phase-In Plan to the CO NLT 15 days after contract award. Changes shall be limited to unforeseen conditions that occur prior to transition start.

#### **1.5 Joint Inspection.**

**1.5.1 Aircraft Sun Shade.** The contractor and CO appointed government representative shall conduct a joint inventory of all aircraft sun shades before contract start.

**1.6 Existing Conditions.** Identify substandard conditions or incomplete work to include, but not limited to: environmental, safety, health, equipment, and maintenance condition per individual aircraft sun shade. This documentation shall be submitted to the base aircraft sun shade Manager within 30-days of contract award, and shall be in the same format as the Annual Inspection Report, in Appendix D.

**1.7 Phase-Out Plan.** Submit a Phase-Out Plan for contract completion tasks when directed by the CO. The requirements for the plan shall be detailed in CO tasking letter.

#### **2.0 CONTRACTOR PERSONNEL.**

**2.1 Contractor Employees.** The contractor shall not employ persons identified by the CO as a potential threat to the health, safety, security, general well-being, or operational mission of the installation or its populace.

**2.1.1 National Agency Checks (NAC).** Perform a credit check (utilizing commercial background and investigate entities) on all employees requiring a NAC. The results of the background and credit check shall accompany all NAC applications. Employees with unfavorable background or credit history may be denied a favorable NAC. In addition, a favorable/adjudicated NAC is considered a condition of employment. The contractor shall ensure employees that are denied a favorable NAC and/or security clearance are not working under this contract, due to the sensitive environment/location of the work being performed.

**2.1.3 Laws, Directives, and Regulations.** Comply with the laws, regulations, and directives of the appropriate Major Command (MAJCOM).

**2.1.4 Terminations.** Remove employees identified as potential threat to the health, safety, security, general well-being or operational mission of the installation or its population, or failure to comply with laws, regulations, and directives of the appropriate MAJCOM.

**2.1.5 Conflict of Interests.** Do not employ any person who is an employee of the government if the employment of that person would create a conflict of interest, or the appearance of a conflict of interest.

**2.2 Employee Training.** Develop, implement, and maintain procedures for training, qualifying, and certifying employees prior to performance of assigned duties under this contract (i.e., welding, electrical, etc.). Formulate and provide comprehensive training, qualification, and certification procedures for its employees for submission with the QCP.

**2.2.1 Records.** Develop and maintain individual training records to document training and test results. Document all initial and supplemental training accomplished in each employee's training record. Maintain each training record at the individual's work location and make available to government representative(s) upon request.

### **3.0 HOURS OF OPERATION.**

**3.1 Duty Hours.** Provide required resources during normal duty hours. Establish normal duty hours that meet the approval of the CO per local base-level procedures.

**3.2 Holidays.** If the holiday falls on a Saturday or Sunday, it may be observed on Friday or Monday as directed. U.S. holidays include (per local base-level procedures):

New Year's Day

Martin Luther King Day

Presidents Day

Memorial Day

Independence Day

Labor Day

Columbus Day

Veterans Day

Thanksgiving

Christmas

//////////////////////////////////////END OF DOCUMENT//////////////////////////////////////

## APPENDIX A

### DEFINITIONS

**Configuration Management** – physical attributes or characteristics. Installation of original hardware/equipment.

**Corrosion** – the electrochemical oxidation of metals in reaction with an oxidant such as oxygen. Can occur in any environment.

**Fatigue** – the progressive and localized structural damage that occurs when a material is subjected to cyclic loading.

**Fracture** – the (local) separation of an object or material into two, or more, pieces under the action of stress.

**Fraying** – to strain; chafe. To wear away (the edges of fabric, for example) by rubbing. To become worn away or tattered along the edges. A frayed or threadbare spot, as on fabric.

**Hardware** – a general term for items such as fasteners, bolts, washers, wire, turn buckles, etc.

**Performance Work Statement (PWS)** – specifies the government's requirements for services to be performed.

**Serviceable** – safe for use and discrepancies do not pose a hazard to personnel, equipment and/or aircraft. Unit can expand upon specifics for this definition.

**Structural Failure** – loss of the load-carrying capacity below manufacturer's design. Can refer to a component or member within a structure or of the structure itself.

**Unserviceable** – presents a danger to personnel, equipment and/or aircraft. Unit can expand upon specifics for this definition.

**Wear** – erosion or sideways displacement of material from its "derivative" and original position on a solid surface performed by the action of another surface. Wear is related to interactions between surfaces and more specifically the removal and deformation of material on a surface as a result of mechanical action of the opposite surface.

## APPENDIX B

### DELIVERABLES

DELIVERABLE	PWS REFERENCE	DUE DATE
Preventative Maintenance Plan (PMP)	Section 2.1.2	60 days after contract award
Quarterly Maintenance Documentation	Section 2.2.1	Quarterly
Work Schedules	Section 2.3.3.1	NLT 30 days before work is scheduled
Quality Control Plan (QCP)	Section 5.1	45 days after contract award
Phase-In Plan	Section D.1.3	15 days after contract award
Phase-Out Plan	Section D.1.7	Per CO request

## APPENDIX C

### MAINTENANCE DOCUMENTATION

[illegible]

## APPENDIX D

### ANNUAL INSPECTION REPORT

[illegible]